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Arboviral Disease — United States, 1994

Arboviruses are mosquitoborne and tickborne agents that persist in nature in complex cycles involving birds and mammals, including humans. Characteristics of arboviral infection include fever, headache, encephalitis, and sometimes death. In 1994, health departments in 20 states reported 100 presumptive or confirmed human cases of arboviral disease* to CDC. Of these, 76 were California (CAL) serogroup encephalitis; 20, St. Louis encephalitis (SLE); two, western equine encephalomyelitis (WEE); one, eastern equine encephalomyelitis (EEE); and one, Powassan encephalitis (POW). This report summarizes information about arboviral disease in the United States during 1994.

Powassan Encephalitis

POW was serologically confirmed in a 49-year-old female resident of Massachusetts who had onset of illness May 24. She reported removing an engorged tick from her abdomen approximately 2 weeks before onset of symptoms. She was admitted to the hospital on May 25 with a diagnosis of meningoencephalitis, which progressed during the following 72 hours to encephalitis involving the brain stem and basal ganglia. During hospitalization, the patient was comatose for 3 days and required mechanical ventilation. On June 16, she was discharged to a rehabilitation center and, on July 25, was transferred to a resident health-care facility. On examination in August 1995, she had residual weakness in her right leg requiring a brace. The patient's prolonged convalescence is consistent with that reported for POW encephalitis.

California Serogroup Encephalitis

During 1994, a total of 76 human CAL serogroup encephalitis cases were reported from 13 states: West Virginia (32 cases), Ohio (14), Wisconsin (seven), Illinois (six), Minnesota (four), Indiana and North Carolina (three each), Alabama (two), and Iowa,

*At CDC, a confirmed case is defined as febrile illness with mild neurologic symptoms, aseptic meningitis, or encephalitis with onset during a period when arbovirus transmission is likely to occur, plus at least one of the following criteria: 1) fourfold or greater rise in serum antibody titer, 2) viral isolation from tissue, blood, or cerebrospinal fluid; or 3) specific immunoglobulin M (IgM) antibody in cerebrospinal fluid. A presumptive case is defined as compatible illness, plus either a stable elevated antibody titer to an arbovirus (≥320 by hemagglutination inhibition, ≥128 by complement fixation, ≥256 by immunofluorescent assay, or ≥160 by plaque-reduction neutralization test) or specific IgM antibody in serum by enzyme immunoassay.

Arboviral Disease — Continued

Kentucky, Michigan, Rhode Island, and Virginia (one each). Patients ranged in age from 6 months to 26 years (mean: 7 years). A total of 57 cases (75%) occurred among males. Onsets of illness occurred in May (one case), June (one), July (12), August (35), September (22), and October (five).

St. Louis Encephalitis

During 1994, a total of 20 human cases of SLE were reported from five states. Sixteen cases were reported in Louisiana; most (14) occurred in urban New Orleans (Orleans and Jefferson parishes). Three cases (in 44- and 60-year-old men and a 63-year-old woman) were fatal. Patients ranged in age from 12 to 78 years (mean: 46 years). Of the 16 cases, nine (56%) occurred among males. SLE cases also were reported in residents of Riverside County, California; Charlotte County, Florida; Forrest County, Mississippi; and Harris County, Texas (one each). For the 20 total cases, onsets of illness occurred in July (one case), August (nine), September (nine), and October (one).

Western and Eastern Equine Encephalomyelitis

During 1994, two human cases of WEE were reported from Goshen County in southeastern Wyoming; the cases occurred in a 40-year-old woman and a 42-year-old man. One human case of EEE in a 67-year-old man was reported from Iberville Parish, Louisiana.

Western and Eastern Equine Encephalomyelitis in Animals

Surveillance for arboviral disease includes cases in susceptible animals because, during previous outbreaks, animal cases preceded human cases by 2–3 weeks. During 1994, a total of five WEE cases among horses were reported from three states: Idaho (two cases), Wyoming (two), and Texas (one). WEE was isolated from emus in Boulder County, Colorado (one), and Lancaster County, Nebraska (one), and from a symptomatic pigeon in Stanislaus County, California.

A total of 133 cases of EEE among horses were reported from 11 states: Florida (54 cases), South Carolina (20), North Carolina (15), Michigan (12), Georgia (nine), Alabama and New Jersey (seven each), Indiana and Louisiana (three each), Ohio (two), and Virginia (one). In addition, EEE virus was isolated from other species in five states. In Michigan, virus was isolated from two pheasant flocks. In Florida, EEE virus was isolated from specimens of viscera from a symptomatic duck and from 1–4-week-old piglets during an epizootic in the Florida panhandle in which 50 of 90 piglets observed had objective central nervous system signs; the number of deaths is unknown. In Georgia, EEE virus was recovered from a litter of 3-week-old boxer puppies; three of five puppies in the litter died. EEE cases in emus were reported from New Jersey (10 cases), Florida (three), Georgia (two), and North Carolina (one).

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Arboviral Disease — Continued

Editorial Note: The findings in this report indicate that CAL serogroup encephalitis remains the most frequently reported arbovirus infection in the United States. Although the number of CAL serogroup encephalitis cases has remained relatively constant since the 1970s and was reported primarily from the Midwest, the number of cases reported from the South has increased. For example, in 1994, Alabama for the first time reported CAL serogroup encephalitis cases, and Kentucky and Virginia—which previously had reported a total of only six cases since 1964—each reported one in 1994.

In general, SLE occurs as periodic focal outbreaks followed by years of sporadic cases. In 1994, a small focal outbreak of SLE occurred in urban New Orleans. Evaluation of case-patients by date of illness onset and location suggests that the earliest cases occurred among persons living within or in proximity to urban public housing projects. Subsequent cases followed a pattern of radial spread from the central urban area, although the small number of cases preclude a definitive analysis. An investigation by New Orleans Mosquito Control Board personnel found large populations of immature and adult *Culex pipiens quinquefasciatus* mosquitoes under housing units. Leaking sewer lines located in the crawl space beneath these housing units provided an extensive and ideal habitat for the SLE virus vector mosquito.

The POW case in Massachusetts in 1994 was the first reported from that state. Previously, the most recent POW case in the United States occurred in New York in 1978. POW virus is a tickborne flavivirus most closely related to Russian spring summer and Central European encephalitis viruses. Although understanding of the epidemiology of POW virus in the United States is limited, the virus appears to be widely distributed. In North America, *Ixodes cookei* has been implicated as the principal tick vector, and virus has been recovered from several rodent and carnivore species, including the red squirrel, woodchucks, striped and spotted skunks, foxes, short- and long-tailed weasels, and the white-footed deer mouse.[†]

Human infections with POW virus occur infrequently, with seroprevalence rates of 0.5%–4.0% in areas where the virus is endemic (*1*). During 1958–1981, a total of 19 confirmed POW cases among humans were reported in North America, primarily from the northeastern United States and eastern Canada. Since 1981, five additional confirmed cases have been reported from Canada: Quebec (two, one fatal) (H. Artsob, Quebec Laboratory Center for Disease Control, personal communication, 1995); New Brunswick (one) (*2*); Ontario (one); and Nova Scotia (one) (M. Mahdy, Ontario Ministry of Health Laboratory Services, personal communication, 1995). Based on evaluation of the 24 total POW cases that occurred in North America during 1958–1994, risk for infection may be highest in wooded areas where potential contact with infected rodent or carnivore hosts or tick vectors is greatest. Of the 24 cases, 21 occurred in persons aged <20 years. Four of the acute infections were fatal, and two patients died 1 and 3 years after onset as a result of sequelae reported to be directly related to the disease.

Health-care providers should consider arboviruses in the differential diagnosis of aseptic meningitis and encephalitis cases during the summer months. Early identification of arboviral cases is important to implement risk-reduction strategies (i.e., use of vector-control practices, repellents, and changes in human activity patterns). Serum

[†] *Tamiasciurus hudsonicus, Marmota monax* and *Mephitis mephitis, Spilogale putorius, Vulpes* sp. *Urocyon Cinereoargenteus* (gray fox), *Mustella erminea* and *Mustella frenata*, and *Peromyscus maniculatus*, respectively.

Arboviral Disease — Continued

(acute and convalescent) and cerebrospinal fluid samples should be obtained for serologic testing, and cases should be promptly reported to state health departments. New rapid diagnostic techniques, including detection of immunoglobulin M antibody in acute serum or cerebrospinal fluids, have facilitated confirmation of arbovirus infections.

References

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2. Fitch W, Artsob H. Powassan encephalitis in New Brunswick. Can Fam Physician 1990;33:1289–90.

Update: Influenza Activity — Worldwide, 1995

From October 1994 through August 1995, influenza activity occurred at low to moderate levels in most parts of the world. Influenza activity usually was associated with the cocirculation of influenza types A and B viruses. Overall, influenza A(H3N2) was the predominant influenza A subtype, but isolation of influenza A(H1N1) viruses increased during this period and was the most frequently isolated influenza virus in Australia from March through August. This report summarizes influenza activity worldwide from March through August 1995.

Africa. In Madagascar, circulation of influenza A(H3N2) began during January and continued through April; during April, influenza A(H1N1) was isolated in Madagascar. In South Africa, influenza A(H1N1) and influenza A(H3N2) viruses were isolated from samples collected for respiratory virus isolation during May–July. Influenza B viruses also were detected in South Africa during July. Influenza A(H3N2) was isolated in Zambia during June.

Asia. Influenza A(H1N1), A(H3N2), and influenza B viruses were isolated during every month from March through June in Asia. Influenza A(H1N1) viruses were isolated in Guam during May, in Hong Kong during March and April, and in Thailand during April, May, and July. Influenza A(H1N1) and influenza B viruses were isolated during outbreak-level activity in Taiwan during April–June. Other countries reporting influenza B activity associated with sporadic cases or outbreaks included China, Hong Kong, Japan, Korea, Singapore, and Thailand. Influenza A(H3N2) viruses were isolated in China in association with sporadic and outbreak activity during April and from sporadic cases during June. Influenza A(H3N2) viruses also were isolated in Korea and Thailand during March, in Guam during March and May, in Hong Kong during March and July, and in Japan during April. Singapore reported influenza A activity every month from March through June; influenza A (H3N2) isolates were subtyped during March, May, and June. Additional influenza A viruses, subtype unknown, were identified by antigen-detection methods in Malaysia during March.

Europe. Activity in Europe began with an outbreak of influenza B virus in Portugal during October 1994 and continued from March through June. Influenza A(H3N2), A(H1N1), and influenza B viruses were isolated during this period. Outbreak activity was last reported from Romania and Bulgaria during May. Circulation of influenza A(H1N1) viruses increased from March through May and was associated with an

Influenza Activity — Continued

outbreak in members of a military unit in Bulgaria. Detection of both influenza A and influenza B viruses continued in France during June.

North America. Influenza A(H3N2) viruses predominated during the 1994–95 season, but influenza B and A(H1N1) viruses also were isolated. Following peak activity during February through early March in the United States, influenza A(H3N2), A(H1N1), and influenza B viruses continued to be isolated every month during March–June. Influenza A(H1N1) was isolated from one patient in Arizona during July. The number of influenza A(H1N1) isolates increased during February–May; most were collected during May. Late-season influenza activity also occurred in Canada. The most recent detection of influenza B virus was reported during the week ending June 3, and reports of influenza A virus isolation or detection continued during July and August. As in the United States, influenza A(H1N1) viruses were reported in Canada during the latter part of the influenza season.

Central and South America. Influenza A and influenza B viruses were detected during the 1994–95 influenza season in South America with influenza A predominating. Brazil reported detection of influenza A from February through April. In Chile, outbreaks of influenza were detected during May–July; influenza A predominated, but influenza B also was detected. In Argentina, the first case of influenza A was diagnosed in late May and outbreaks were reported during June and July; influenza A predominated, but influenza B also was detected. Reports of influenza-like illness increased in Uruguay during May–July, and influenza A virus was identified by antigen-detection methods. Influenza A virus was detected in one patient in Panama during June, followed by a single detection of influenza B virus during July. All influenza A viruses from Argentina, Brazil, and Chile subtyped or further identified by serologic testing were influenza A(H3N2). No influenza A(H1N1) isolates were reported from Central or South America.

Oceania. The influenza season began early in Australia with outbreaks in the Northern Territory at the end of March. Both influenza A(H1N1) and influenza B viruses were isolated during the outbreak, with influenza A(H1N1) viruses predominating. Influenza-like illness, as reported by general practitioners, increased through the beginning of July and remained stable during mid-July through the beginning of August. As the season progressed, the number of influenza B isolates increased; however, influenza A(H1N1) viruses remained more prevalent. Influenza A(H3N2) viruses were rarely isolated. In contrast, influenza B predominated in New Zealand through July, but the proportion of influenza A(H3N2) viruses isolated increased during July. Both influenza A(H3N2) and influenza B viruses were associated with outbreaks at the end of July.

Characterization of influenza virus isolates. From October 1, 1994, through August 15, 1995, a total of 760 influenza isolates collected worldwide were antigenically characterized by the World Health Organization Collaborating Center for Surveillance, Epidemiology, and Control of Influenza at CDC. Of these, 535 (70%) were from North America, 76 (10%) from Europe, 130 (17%) from Asia, and 19 (3%) from South America and Oceania. Of the viruses subtyped, 396 (52%) were influenza A(H3N2), 91 (12%) A(H1N1), and 273 (36%) influenza B. Of the 396 influenza A(H3N2) isolates characterized, 227 (57%) were antigenically related to A/Shangdong/09/93, the 1994–95 vaccine strain, and 164 (41%) were more closely related to A/Johannesburg/33/94, the A(H3N2) component of the 1995–96 influenza vaccine. Of the 273 influenza B viruses,

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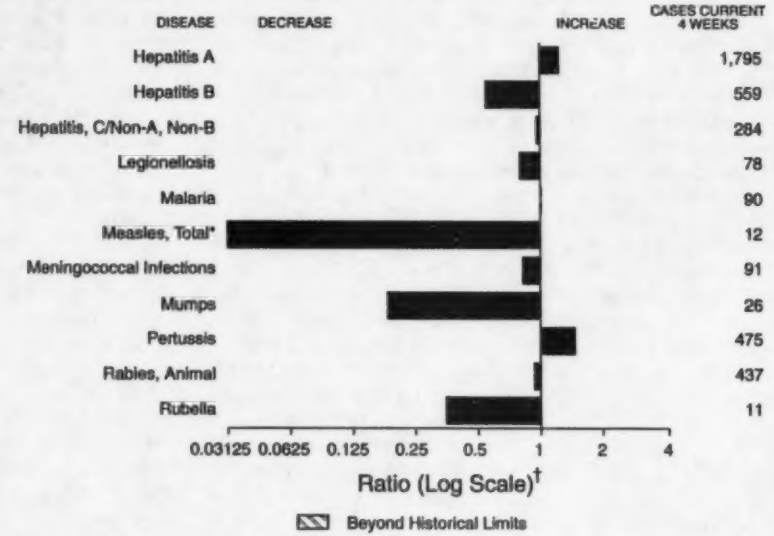
FIGURE I. Notifiable disease reports, comparison of 4-week totals ending September 2, 1995, with historical data — United States



*The large apparent decrease in the number of reported cases of measles (total) reflects dramatic fluctuations in the historical baseline.

†Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

TABLE I. Summary — cases of specified notifiable diseases, United States, cumulative, week ending September 2, 1995 (35th Week)

	Cum. 1995		Cum. 1995
Anthrax	-	Psittacosis	48
Brucellosis	82	Rabies, human	1
Cholera	11	Rocky Mountain Spotted Fever	357
Congenital rubella syndrome	4	Syphilis, congenital, age < 1 year†	132
Diphtheria	-	Tetanus	19
*Haemophilus influenzae**	813	Toxic shock syndrome	125
Hansen Disease	89	Trichinosis	24
Plague	8	Typhoid fever	203
Poliomyelitis, Paralytic	-		

*Of 794 cases of known age, 190 (24%) were reported among children less than 5 years of age.
†Updated quarterly from reports to the Division of STD Prevention, National Center for Prevention Services. This total through first quarter 1995.
-: no reported cases

TABLE II. Cases of selected notifiable diseases, United States, weeks ending September 2, 1995, and September 3, 1994 (35th Week)

Reporting Area	AIDS*	Gonorrhea		Hepatitis (Viral), by type						Legionellosis	
				A		B		C/NA,NB			
	Cum. 1995	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994
UNITED STATES	47,385	231,774	266,792	17,887	15,802	6,569	7,701	2,871	2,761	828	1,049
NEW ENGLAND	2,412	3,432	5,376	181	205	133	243	79	103	18	39
Maine	74	58	63	19	20	7	11	-	-	5	4
N.H.	72	75	75	6	15	14	16	11	8	1	-
Vt.	23	37	21	4	6	1	6	1	7	-	-
Mass.	1,014	1,921	2,071	73	81	57	145	63	68	10	23
R.I.	184	336	315	23	18	8	6	4	20	2	12
Conn.	1,045	1,005	2,831	56	65	46	59	-	-	N	N
MID. ATLANTIC	12,777	22,979	30,409	1,020	1,138	789	1,013	265	332	122	162
Upstate N.Y.	1,634	3,846	7,397	262	404	261	274	146	158	32	38
N.Y. City	6,547	7,375	11,319	478	419	233	214	1	1	3	-
N.J.	2,983	3,166	3,467	132	212	166	270	90	144	17	30
Pa.	1,613	8,592	8,226	148	103	129	255	28	29	70	94
E.N. CENTRAL	3,813	50,335	53,920	1,972	1,529	656	803	182	229	216	304
Ohio	733	15,361	14,494	1,264	543	81	118	7	17	110	144
Ind.	383	5,518	5,780	112	260	161	146	3	6	50	34
Ill.	1,525	13,628	16,687	217	383	94	218	33	62	13	26
Mich.	721	11,988	11,880	254	181	282	257	139	142	22	55
Wis.	251	3,840	5,099	125	162	40	66	-	-	21	45
W.N. CENTRAL	1,091	13,045	14,970	1,261	766	424	449	83	61	82	73
Minn.	243	1,628	2,188	125	163	37	43	2	14	2	2
Iowa	55	983	972	48	35	31	22	9	7	17	26
Mo.	476	7,495	8,261	902	358	306	333	49	15	43	23
N. Dak.	5	19	27	23	4	4	-	7	1	4	4
S. Dak.	11	123	133	37	24	2	-	1	-	-	1
Nebr.	80	697	932	34	101	20	24	6	10	9	12
Kans.	221	1,900	2,477	92	81	24	27	9	14	7	5
S. ATLANTIC	12,200	67,213	70,781	858	801	968	1,429	225	311	153	255
Del.	220	1,455	1,283	7	17	2	10	1	1	2	29
Md.	1,635	7,471	12,675	149	115	174	232	2	17	23	56
D.C.	738	2,982	4,860	17	16	15	36	-	-	4	5
Va.	965	6,211	8,900	136	108	79	84	10	18	13	5
W. Va.	77	471	530	17	11	39	28	40	23	3	1
N.C.	712	16,221	17,964	79	90	203	187	42	44	27	17
S.C.	671	8,190	8,688	34	30	34	23	16	7	29	9
Ga.	1,628	10,351	U	55	25	63	505	15	163	23	95
Fla.	5,554	13,861	15,881	364	389	359	324	99	38	29	38
E.S. CENTRAL	1,551	29,485	31,444	1,053	394	588	824	719	623	34	67
Ky.	197	3,283	3,344	26	116	43	61	13	21	6	8
Tenn.	638	9,343	9,997	863	157	468	709	704	589	21	33
Ala.	411	12,360	10,849	61	65	77	54	2	13	6	11
Miss.	305	4,499	7,254	103	56	-	-	-	-	1	15
W.S. CENTRAL	4,178	21,811	31,717	2,519	2,059	1,053	780	463	202	11	33
Ark.	186	2,080	4,601	379	128	37	20	5	6	1	6
La.	715	7,771	8,273	60	106	140	120	113	114	2	10
Okla.	196	1,496	3,231	629	196	342	93	314	42	3	11
Tex.	3,081	10,464	15,612	1,431	1,629	534	547	31	40	5	6
MOUNTAIN	1,466	5,700	6,641	2,755	3,049	536	442	299	305	89	66
Mont.	16	47	66	72	17	19	17	10	6	4	14
Idaho	37	87	58	227	232	60	63	39	62	2	1
Wyo.	10	37	54	84	20	16	18	121	105	8	3
Colo.	491	1,980	2,281	360	336	81	73	42	52	37	15
N. Mex.	123	705	684	586	767	205	140	37	41	3	3
Ariz.	392	1,938	2,089	807	1,193	82	45	28	13	7	4
Utah	98	131	183	510	322	48	48	8	13	13	6
Nev.	299	775	1,226	109	162	25	38	14	13	15	20
PACIFIC	8,097	17,774	21,534	6,268	5,861	1,420	1,718	556	595	103	50
Wash.	667	1,771	1,998	540	760	122	163	144	185	18	10
Oreg.	265	212	684	1,314	661	59	96	29	25	-	-
Calif.	6,910	14,920	17,744	4,271	4,242	1,218	1,424	358	381	80	38
Alaska	53	474	611	30	161	9	11	1	-	-	-
Hawaii	182	397	497	113	37	12	24	26	4	5	2
Guam	-	51	85	2	18	1	4	-	-	1	1
P.R.	1,851	351	344	80	41	523	229	239	121	-	-
V.I.	27	6	17	-	2	2	6	-	1	-	-
Amer. Samoa	-	18	20	5	6	-	-	-	-	-	-
C.N.M.I.	-	23	34	15	5	7	1	-	-	-	-

N: Not notifiable U: Unavailable -: no reported cases C.N.M.I.: Commonwealth of Northern Mariana Islands

*Updated monthly to the Division of HIV/AIDS Prevention, National Center for Prevention Services, last update August 31, 1995.

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending September 2, 1995, and September 3, 1994 (35th Week)

Reporting Area	Lyme Disease		Malaria		Measles (Rubeola)						Meningococcal Infections		Mumps	
					Indigenous		Imported*		Total					
	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994	1995	Cum. 1995	1995	Cum. 1995	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994
UNITED STATES	5,088	8,023	724	706	1	217	1	21	238	836	2,135	1,943	568	1,011
NEW ENGLAND	1,374	1,958	34	53	-	6	-	1	7	27	100	90	10	16
Maine	16	17	4	4	-	-	-	-	-	5	7	18	4	3
N.H.	17	15	1	3	-	-	-	-	-	1	19	8	1	4
Vt.	7	12	1	3	-	-	-	-	-	3	6	2	-	-
Mass.	123	119	10	27	-	1	-	1	2	7	36	40	2	2
R.I.	238	299	4	5	-	5	-	-	5	7	-	-	1	1
Conn.	973	1,496	14	11	-	-	-	-	-	4	32	22	2	6
MID. ATLANTIC	2,985	4,767	174	134	-	6	-	4	10	211	254	208	82	86
Upstate N.Y.	1,559	3,134	41	38	-	1	-	-	1	17	78	63	22	25
N.Y. City	81	11	85	45	-	2	-	3	5	13	32	26	13	4
N.J.	581	978	34	29	-	3	-	1	4	173	73	47	6	13
Pa.	744	644	14	22	-	-	-	-	-	8	71	72	41	44
E.N. CENTRAL	55	437	74	71	-	7	-	3	10	102	289	281	90	183
Ohio	37	29	7	8	-	1	-	-	1	17	89	79	31	42
Ind.	10	13	13	10	-	-	-	-	-	1	41	38	3	6
Ill.	3	22	32	33	-	-	-	2	2	56	71	95	29	75
Mich.	5	5	13	18	-	4	-	1	5	25	54	39	33	33
Wis.	-	368	9	2	-	2	-	-	2	3	34	30	-	7
W.N. CENTRAL	98	145	17	32	-	2	-	-	2	170	141	126	38	50
Minn.	42	58	3	10	-	-	-	-	-	-	22	12	2	4
Iowa	8	11	1	4	-	-	-	-	-	7	25	16	9	12
Mo.	30	68	6	11	-	1	-	-	1	160	58	61	22	31
N. Dak.	-	-	1	1	-	-	-	-	-	-	1	1	1	2
S. Dak.	-	-	1	-	-	-	-	-	-	-	5	7	-	-
Nebr.	1	3	3	4	-	-	-	-	-	2	12	9	4	1
Kans.	17	5	2	2	-	1	-	-	1	1	18	20	-	-
S. ATLANTIC	403	532	162	135	-	10	-	1	11	53	388	281	85	147
Del.	7	69	1	3	-	-	-	-	-	-	5	5	-	-
Md.	267	158	43	49	-	-	-	1	1	4	28	25	20	42
D.C.	1	4	14	10	-	-	-	-	-	-	3	3	-	-
Va.	37	109	35	18	-	-	-	-	-	2	47	52	17	32
W. Va.	18	13	1	-	-	-	-	-	-	37	8	11	-	3
N.C.	43	59	13	7	-	-	-	-	-	3	58	42	16	35
S.C.	10	7	1	4	-	-	-	-	-	-	52	17	9	6
Ga.	12	102	18	22	-	2	-	-	2	2	77	62	8	8
Fla.	8	11	36	22	-	8	-	-	8	5	108	64	15	21
E.S. CENTRAL	32	34	15	27	-	-	-	-	-	28	133	144	13	18
Ky.	5	21	1	8	-	-	-	-	-	-	46	33	-	-
Tenn.	19	9	7	9	-	-	-	-	-	28	35	26	-	6
Ala.	6	4	6	9	-	-	-	-	-	-	29	56	4	5
Miss.	2	-	1	1	-	-	-	-	-	-	23	29	9	7
W.S. CENTRAL	82	85	17	36	-	19	1	3	22	16	266	229	36	179
Ark.	5	7	3	3	-	2	-	-	2	1	22	37	4	5
La.	3	-	2	6	-	17	-	1	18	1	39	31	8	22
Okla.	36	48	1	4	-	-	-	-	-	-	26	24	-	23
Tex.	38	30	11	23	-	-	1	2	2	14	179	137	24	129
MOUNTAIN	7	9	40	23	-	49	-	1	50	162	149	136	24	127
Mont.	-	-	3	-	-	-	-	-	-	-	2	6	1	-
Idaho	-	3	1	2	-	-	-	-	-	-	6	15	2	7
Wyo.	3	3	-	1	-	-	-	-	-	-	6	5	-	2
Colo.	1	1	17	10	-	8	-	-	8	19	37	25	2	3
N. Mex.	1	-	4	3	-	30	-	1	31	-	30	13	N	N
Ariz.	-	-	7	2	-	10	-	-	10	1	48	47	2	91
Utah	-	1	5	4	-	-	-	-	-	133	13	18	11	13
Nev.	2	1	3	1	-	1	-	-	1	9	7	7	6	11
PACIFIC	72	56	191	195	1	118	-	8	126	67	417	448	184	225
Wash.	7	1	15	21	-	16	-	4	20	3	71	69	10	14
Oreg.	4	6	7	12	-	1	-	-	1	2	64	99	N	N
Calif.	61	49	158	149	1	101	-	3	104	53	271	273	157	195
Alaska	-	-	1	1	-	-	-	-	-	5	7	2	13	2
Hawaii	-	-	10	12	-	-	-	1	1	4	4	5	4	14
Guam	-	-	-	-	U	-	U	-	-	228	3	-	3	6
P.R.	-	-	1	3	-	11	-	-	11	11	14	6	-	2
V.I.	-	-	-	-	U	-	U	-	-	-	-	-	2	3
Amer. Samoa	-	-	-	-	-	-	-	-	-	-	-	-	-	2
C.N.M.I.	-	-	1	1	U	-	U	-	-	29	-	-	-	2

*For imported measles, cases include only those resulting from importation from other countries.
N: Not notifiable U: Unavailable -: no reported cases

CDC

August 18, 1995 / Vol. 44 / No. 32

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

Human Granulocytic Ehrlichiosis — New York, 1995

Since 1986, two human tickborne diseases caused by *Ehrlichia* spp. have been recognized in the United States: human monocytic ehrlichiosis (HME), caused by *E. chaffeensis*, and human granulocytic ehrlichiosis (HGE), caused by an agent closely related to *E.* [illegible] Department of Health (WCDOH) received reports from physicians who were treating patients for suspected HGE. In response, the WCDOH sent information to all primary-care physicians in Westchester Coun[illegible]d laboratory features of ehrlichiosis (fever, myalgia, headache, leukopenia, and thrombocytopenia) and requested that they voluntarily report suspected cases of ehrlichiosis. This report summarizes an [illegible]th (NYSDOH) and the WCDOH of suspected ehrlichiosis cases and the clinical characteristics of confirmed and probable cases.

Hospitals and large group practices in Westchester County were asked to report current and past suspected cases, and the NYSDOH laboratory initiated free diagnostic testing for ehrlichiosis for New York state residents. Potential cases of ehrlichiosis were identified through reports submitted by health-care providers to their county health departments and from a review of NYSDOH laboratory records of serum specimens that were submitted for diagnostic testing for ehrlichiosis since 1994. Serum specimens from potential cases were tested for antibodies to *E. equi* and/or *E. chaffeensis*, and/or the presence of DNA of the HGE agent by polymerase chain reaction (PCR) assay. A confirmed case of HGE was defined as either a fourfold change in antibody titer to *E. equi* or identification of DNA sequences of the HGE agent by PCR assay. A probable case of HGE was defined as a single antibody titer ≥64 by immunofluorescent assay to *E. equi* or the identification of organisms (morulae) in granulocytes on a peripheral blood smear from a patient with an acute illness characterized by fever, headache, myalgia, and/or malaise.

As of August 15, 1995, medical records and/or clinical information had been reviewed for 68 patients with suspected ehrlichiosis: 50 had onset in 1995; 17, in 1994; and one, in 1992. Serum specimens from 30 patients had been tested for antibodies to *E. equi* and/or *E. chaffeensis*; 20 patients had acute serum specimens tested by PCR analysis.

Illnesses in 29 patients met the case definition of either confirmed (23 patients) or probable (six patients) HGE, 20 from 1995 and nine from 1994; other potential cases

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TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending September 2, 1995, and September 3, 1994 (35th Week)

Reporting Area	Pertussis			Rubella			Syphilis (Primary & Secondary)		Tuberculosis		Rabies, Animal	
	1995	Cum. 1995	Cum. 1994	1995	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994
UNITED STATES	117	2,311	2,531	-	113	205	10,032	14,439	12,759	14,495	4,745	5,080
NEW ENGLAND	10	296	255	-	34	128	118	156	326	320	1,073	1,272
Maine	-	22	3	-	1	-	2	4	12	-	22	-
N.H.	1	22	48	-	1	-	1	3	9	13	113	111
Vt.	2	46	31	-	-	-	-	-	3	5	130	102
Mass.	7	193	149	-	7	124	43	66	185	171	330	479
R.I.	-	1	5	-	-	2	2	12	29	32	222	26
Conn.	-	12	19	-	25	2	70	71	88	99	256	554
MID. ATLANTIC	7	183	397	-	11	6	572	971	2,703	3,015	927	1,322
Upstate N.Y.	-	94	167	-	4	5	43	127	314	369	370	977
N.Y. City	7	21	76	-	7	-	261	431	1,443	1,779	-	-
N.J.	-	5	12	-	-	1	120	150	507	510	250	198
Pa.	-	63	142	-	-	-	148	263	439	357	307	147
E.N. CENTRAL	11	223	395	-	4	9	1,737	2,167	1,203	1,373	58	43
Ohio	9	91	106	-	-	-	614	848	184	220	8	2
Ind.	1	14	46	-	-	-	172	167	49	120	10	11
Ill.	-	52	81	-	1	1	640	722	657	690	3	13
Mich.	1	54	38	-	3	8	193	203	265	302	30	10
Wis.	-	12	124	-	-	-	118	227	48	41	7	7
W.N. CENTRAL	2	134	115	-	-	2	530	848	403	370	221	153
Minn.	-	43	51	-	-	-	28	33	88	88	8	14
Iowa	-	6	7	-	-	-	34	43	47	36	88	65
Mo.	-	40	29	-	-	2	450	725	160	160	19	14
N. Dak.	-	8	4	-	-	-	-	1	3	6	23	9
S. Dak.	2	10	7	-	-	-	-	1	15	17	49	24
Nebr.	-	7	7	-	-	-	9	11	17	18	5	-
Kans.	-	20	10	-	-	-	9	34	73	47	29	27
S. ATLANTIC	11	224	243	-	26	15	2,538	3,702	2,247	2,653	1,444	1,368
Del.	-	9	2	-	-	-	10	20	12	28	72	41
Md.	-	18	57	-	-	-	137	193	241	222	265	385
D.C.	-	4	5	-	-	-	75	161	68	81	11	2
Va.	5	15	27	-	-	-	369	537	146	212	278	271
W. Va.	-	-	3	-	-	-	8	8	54	59	82	57
N.C.	3	84	58	-	1	-	776	1,158	287	331	332	112
S.C.	2	19	12	-	1	-	410	524	217	249	97	130
Ga.	1	19	23	-	1	2	494	570	323	504	183	268
Fla.	-	56	56	-	23	13	259	531	899	967	124	102
E.S. CENTRAL	55	246	114	-	-	-	2,628	2,595	964	936	184	134
Ky.	1	9	56	-	-	-	143	140	201	221	20	15
Tenn.	52	202	18	-	-	-	592	702	294	265	56	34
Ala.	2	34	28	-	-	-	451	467	275	277	102	81
Miss.	-	1	12	N	N	N	1,442	1,286	194	173	6	4
W.S. CENTRAL	-	193	104	-	7	12	1,310	3,177	1,524	1,807	527	464
Ark.	-	29	18	-	-	-	82	354	113	184	21	20
La.	-	11	9	-	-	-	692	1,225	6	11	25	55
Okla.	-	23	22	-	-	4	54	114	146	171	31	25
Tex.	-	130	55	-	7	8	482	1,484	1,259	1,441	450	364
MOUNTAIN	5	352	351	-	4	4	161	195	405	349	102	106
Mont.	-	3	4	-	-	-	4	2	10	9	34	13
Idaho	-	77	42	-	-	-	-	1	9	11	2	3
Wyo.	-	1	-	-	-	-	4	-	1	4	20	15
Colo.	2	34	169	-	-	-	87	99	22	47	-	9
N. Mex.	3	72	20	-	-	-	32	18	56	43	3	4
Ariz.	-	142	95	-	3	-	22	39	209	146	30	46
Utah	-	18	19	-	1	3	4	9	19	29	9	10
Nev.	-	5	2	-	-	1	28	27	79	60	4	6
PACIFIC	16	460	557	-	27	29	418	628	2,984	3,672	209	218
Wash.	-	113	83	-	2	-	11	28	175	184	4	11
Oreg.	3	22	77	-	1	4	6	28	25	90	-	8
Calif.	10	286	382	-	21	21	400	567	2,626	3,181	201	168
Alaska	-	-	-	-	-	-	1	3	47	45	4	31
Hawaii	3	39	15	-	3	4	-	2	111	172	-	-
Guam	U	-	2	U	-	1	3	3	33	56	-	-
P.R.	-	6	2	-	-	-	172	215	123	116	27	62
V.I.	U	-	-	U	-	-	2	22	-	-	-	-
Amer. Samoa	-	-	1	-	-	-	-	1	3	4	-	-
C.N.M.I.	U	-	-	U	-	-	4	1	13	25	-	-

U: Unavailable -: no reported cases

TABLE III. Deaths in 121 U.S. cities,* week ending September 2, 1995 (35th Week)

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	516	357	92	40	6	17	22
Boston, Mass.	165	97	38	17	4	9	4
Bridgeport, Conn.	38	25	9	3	1	-	4
Cambridge, Mass.	20	18	1	1	-	-	-
Fall River, Mass.	22	17	2	2	-	1	-
Hartford, Conn.	25	17	6	1	-	1	-
Lowell, Mass.	20	16	3	1	-	-	1
Lynn, Mass.	10	6	-	-	-	-	-
New Bedford, Mass.	21	16	2	1	-	-	1
New Haven, Conn.	25	17	6	1	-	1	-
Providence, R.I.	42	31	4	6	-	1	3
Somerville, Mass.	6	4	2	-	-	-	-
Springfield, Mass.	35	24	6	1	1	3	4
Waterbury, Conn.	29	22	4	3	-	-	2
Worcester, Mass.	58	45	9	3	-	1	3
MID. ATLANTIC	2,318	1,495	431	277	59	50	84
Albany, N.Y.	49	35	5	3	-	6	1
Allentown, Pa.	13	13	-	-	-	-	-
Buffalo, N.Y.	99	74	13	7	3	2	-
Camden, N.J.	37	20	5	10	2	-	2
Elizabeth, N.J.	27	13	10	4	-	-	1
Erie, Pa.§	50	41	7	2	-	-	3
Jersey City, N.J.	45	26	12	4	2	1	-
New York City, N.Y.	1,311	824	245	161	36	25	29
Newark, N.J.	80	30	24	21	3	1	11
Paterson, N.J.	28	12	2	1	1	5	1
Philadelphia, Pa.	200	134	39	18	3	6	13
Pittsburgh, Pa.§	45	27	12	3	2	1	5
Reading, Pa.	17	13	2	1	1	-	2
Rochester, N.Y.	125	92	25	6	1	1	3
Schenectady, N.Y.	30	23	4	2	1	-	-
Scranton, Pa.§	30	21	5	2	2	-	3
Syracuse, N.Y.	74	53	11	6	2	2	7
Trenton, N.J.	19	8	6	5	-	-	1
Utica, N.Y.	14	13	1	-	-	-	1
Yonkers, N.Y.	27	23	3	1	-	-	1
E.N. CENTRAL	2,237	1,429	416	213	82	56	133
Akron, Ohio	23	21	2	-	-	-	-
Canton, Ohio	36	28	4	2	2	-	2
Chicago, Ill.	515	322	95	64	20	12	34
Cincinnati, Ohio	102	48	19	7	2	3	8
Cleveland, Ohio	171	94	44	22	5	6	6
Columbus, Ohio	187	128	28	16	12	3	10
Dayton, Ohio	121	83	25	7	3	3	9
Detroit, Mich.	203	107	53	33	6	4	5
Evansville, Ind.	48	17	9	4	-	4	2
Fort Wayne, Ind.	54	30	14	6	3	1	5
Gary, Ind.	15	5	4	4	2	-	-
Grand Rapids, Mich.	65	51	7	3	1	3	6
Indianapolis, Ind.	245	169	39	17	12	8	17
Madison, Wis.	53	36	6	4	7	-	6
Milwaukee, Wis.	116	87	19	7	-	3	10
Peoria, Ill.	37	29	7	-	-	1	1
Rockford, Ill.	47	36	6	3	-	2	4
South Bend, Ind.	61	43	7	8	3	-	1
Toledo, Ohio	90	62	20	4	3	1	6
Youngstown, Ohio	48	35	8	2	1	2	1
W.N. CENTRAL	742	523	112	59	18	16	36
Des Moines, Iowa	86	66	12	9	1	-	4
Duluth, Minn.	26	24	2	-	-	-	5
Kansas City, Kans.	26	17	3	3	3	-	-
Kansas City, Mo.	116	71	16	12	1	2	7
Lincoln, Nebr.	29	22	6	-	1	-	1
Minneapolis, Minn.	159	118	25	6	4	6	11
Omaha, Nebr.	78	56	14	5	1	2	4
St. Louis, Mo.	116	74	22	14	4	2	-
St. Paul, Minn.	53	41	8	1	1	2	2
Wichita, Kans.	51	34	4	9	2	2	2

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
S. ATLANTIC	1,150	681	250	151	37	28	66
Atlanta, Ga.	159	83	34	28	4	10	6
Baltimore, Md.	206	105	52	34	8	5	17
Charlotte, N.C.	76	49	16	10	1	-	1
Jacksonville, Fla.	119	73	30	8	4	4	8
Miami, Fla.	105	55	27	20	2	1	2
Norfolk, Va.	39	24	7	7	1	-	4
Richmond, Va.	59	36	16	4	3	-	3
Savannah, Ga.	47	27	13	5	1	-	5
St. Petersburg, Fla.	48	37	7	1	-	1	1
Tampa, Fla.	179	129	25	18	1	6	14
Washington, D.C.	105	59	22	16	7	1	5
Wilmington, Del.	10	3	1	-	5	-	-
E.S. CENTRAL	906	609	174	75	28	18	50
Birmingham, Ala.	92	57	20	7	2	4	3
Chattanooga, Tenn.	85	59	18	5	2	1	1
Knoxville, Tenn.	64	49	6	5	3	1	4
Lexington, Ky.	80	50	21	6	2	1	5
Memphis, Tenn.	237	157	48	22	7	3	17
Mobile, Ala.	163	118	22	18	4	1	7
Montgomery, Ala.	57	41	10	4	1	1	2
Nashville, Tenn.	128	78	29	8	7	6	11
W.S. CENTRAL	1,410	888	286	157	54	25	81
Austin, Tex.	82	47	11	17	2	5	2
Baton Rouge, La.	39	32	3	3	-	1	3
Corpus Christi, Tex.	56	36	15	4	1	-	5
Dallas, Tex.	191	118	38	24	12	1	6
El Paso, Tex.	55	34	18	2	1	-	6
Ft. Worth, Tex.	78	53	19	-	2	4	3
Houston, Tex.	366	205	76	63	15	7	25
Little Rock, Ark.	77	52	17	4	2	2	5
New Orleans, La.	121	71	22	18	9	1	-
San Antonio, Tex.	185	125	38	11	8	3	18
Shreveport, La.	61	45	11	4	1	-	7
Tulsa, Okla.	99	72	18	7	1	1	3
MOUNTAIN	828	537	141	90	32	28	44
Albuquerque, N.M.	95	57	17	17	2	2	2
Colo. Springs, Colo.	56	40	10	3	-	3	3
Denver, Colo.	127	81	18	15	6	7	7
Las Vegas, Nev.	112	72	22	10	6	2	6
Ogden, Utah	28	21	6	1	-	-	2
Phoenix, Ariz.	175	108	27	21	10	9	15
Pueblo, Colo.	21	15	5	-	1	-	1
Salt Lake City, Utah	99	64	16	10	5	4	5
Tucson, Ariz.	115	79	20	13	2	1	3
PACIFIC	1,550	1,021	254	179	69	25	84
Berkeley, Calif.	11	10	-	1	-	-	2
Fresno, Calif.	96	60	17	10	6	3	4
Glendale, Calif.	27	19	5	2	1	-	1
Honolulu, Hawaii	64	48	7	5	3	1	2
Long Beach, Calif.	73	55	6	7	3	2	6
Los Angeles, Calif.	400	261	75	38	22	3	11
Pasadena, Calif.	23	17	3	2	1	-	4
Portland, Oreg.	100	67	18	11	4	-	5
Sacramento, Calif.	U	U	U	U	U	U	U
San Diego, Calif.	139	75	25	26	7	6	16
San Francisco, Calif.	145	81	29	29	5	1	11
San Jose, Calif.	159	119	14	14	7	4	11
Santa Cruz, Calif.	21	15	2	3	1	-	2
Seattle, Wash.	138	91	27	15	2	3	2
Spokane, Wash.	55	41	10	1	3	-	4
Tacoma, Wash.	99	62	16	15	4	2	3
TOTAL	11,857¶	7,540	2,156	1,241	385	263	600

*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

†Pneumonia and influenza.

§Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

¶Total includes unknown ages.

U: Unavailable -: no reported cases

Influenza Activity — Continued

66 (24%) were similar to B/Panama/45/90, the 1994–95 vaccine component, and 202 (74%) were similar to B/Beijing/184/93, the 1995–96 vaccine component. Of the 91 influenza A(H1N1) viruses, 12 (13%) were A/Texas/36/91-like, and 79 (87%) were more closely related to the antigenically similar A/Taiwan/01/86-like viruses (*1,2*). The influenza A(H1N1) component of the 1995–96 vaccine is A/Texas/36/91.

Reported by: World Health Organization National Influenza Centers, Communicable Disease Div, World Health Organization, Geneva. World Health Organization Collaborating Center for Surveillance, Epidemiology, and Control of Influenza. Influenza Br, Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases, CDC.

Editorial Note: Based on recent patterns of worldwide influenza activity, the 1995–96 influenza season in the United States may be characterized by cocirculation of influenza type A(H3N2), type A(H1N1) and type B. However, because specific patterns of influenza activity cannot be predicted with certainty, the extent of virus circulation and the relative prevalence of the different influenza virus strains is unknown. Therefore, influenza vaccination should be offered each fall to persons at high risk for influenza-related complications and their close contacts and to health-care providers.

The influenza vaccine is updated annually to include viruses that are antigenically similar to the strains of the three distinct groups of influenza viruses that have been in worldwide circulation. Most of the influenza viruses isolated since March 1995 are antigenically similar to the 1995–96 influenza vaccine strains (CDC, unpublished data, 1995).

Vaccination against influenza is recommended by the Advisory Committee on Immunization Practices for 1) persons aged ≥65 years; 2) persons who reside in nursing homes or chronic-care facilities; 3) persons with chronic cardiovascular or pulmonary disorders, including children with asthma; 4) persons who required medical follow-up or hospitalization during the previous year because of diabetes and other chronic metabolic diseases, renal dysfunction, hemoglobinopathies, or immunosuppression; and 5) children and adolescents who are receiving long-term aspirin therapy and who therefore may be at risk for developing Reye syndrome after influenza. Vaccination also is recommended for health-care workers and other persons who are in close contact with persons in high-risk groups, including household members. Women who will be in the third trimester of pregnancy during the influenza season may be at increased risk for medical complications following influenza infection and should consult with their health-care providers about receiving the vaccine. Influenza vaccine also can be administered to anyone who wants to reduce the likelihood of acquiring influenza.

Beginning in September, persons at high risk who are seen by health-care providers for routine care or as a result of hospitalization should be offered influenza vaccine. The optimal time for organized vaccination campaigns is mid-October through mid-November. Health-care providers should continue to offer vaccine to high-risk persons up to and even after influenza activity is documented in a community.

Information about influenza surveillance is available through the CDC Voice Information System (influenza update) by telephone ([404] 332-4555) or fax ([404] 332-4565) (document number 361100) or through the CDC Information Service on the Public Health Network electronic bulletin board. From October through May, the information is updated weekly. Periodic updates about influenza are published in *MMWR*,

Influenza Activity — Continued

and information on local influenza activity is available through county and state health departments.

References

1. CDC. Update: influenza activity—United States and worldwide, 1993–94 season, and composition of the 1994–95 vaccine. MMWR 1994;44:179–83.
2. CDC. Update: influenza activity—United States and worldwide, 1994–95 season, and composition of the 1995–96 vaccine. MMWR 1995;44:292–5.

Notice to Readers

NIOSH Alert: Request for Assistance in Preventing Deaths and Injuries of Adolescent Workers

CDC's National Institute for Occupational Safety and Health (NIOSH) periodically issues alerts about workplace hazards that have caused death, serious injury, or illness in workers. One such alert, Request for Assistance in Preventing Deaths and Injuries of Adolescent Workers (*1*), was recently published and is available to the public.* This alert summarizes information about work-related injuries and deaths among adolescents, identifies work that is especially hazardous, and offers recommendations for prevention. This information can help employers, parents, educators, and adolescent workers make informed decisions about safe work and recognize hazards in the workplace.

Each year, approximately 70 adolescents die from injuries at work. Hundreds more are hospitalized, and tens of thousands require treatment in hospital emergency departments. For example, 68 adolescents aged <18 years died from work-related injuries in 1993 (*2*), and an estimated 64,000 adolescents had work-related injuries that required treatment in hospital emergency departments in 1992 (*3*). Compared with adults, adolescents have a higher risk for work-related injury (*4*) and a similar risk for fatal occupational injury (*5*). During 1980–1989, the risk for fatal injury among workers aged 16 and 17 years was 5.1 per 100,000 full-time equivalent workers, compared with 6.0 for adult workers—even though adolescents are employed less frequently in especially hazardous jobs.

Agricultural businesses and retail trade accounted for the most work-related deaths among adolescents, and many deaths of workers aged <16 years occurred in family-owned businesses (*1*). Types of work associated with large numbers of deaths and serious injuries included the following: working in or around motor vehicles, operating tractors and other heavy equipment, working near electrical hazards, working in retail and service businesses with a risk for robbery-related homicide, working with fall hazards such as ladders and scaffolds, working around cooking appliances, and performing hazardous manual lifting.

To reduce the potential for serious injuries and deaths of adolescent workers, NIOSH recommends:

1. Employers should know and comply with child labor laws and should evaluate workplace hazards for adolescent workers.

*Single copies of this document are available without charge from the Publications Office, NIOSH, CDC, Mailstop C-13, 4676 Columbia Parkway, Cincinnati, OH 45226-1998; telephone (800) 356-4674 ([513] 533-8328 for persons outside the United States); fax (513) 533-8573.

Notice to Readers — Continued

2. Parents should participate in their children's employment decisions and should discuss the types of work, training, and supervision provided by the employer.
3. Educators should know child labor laws, provide work experience programs with safe and healthful work environments, and incorporate occupational safety and health information in the general curriculum.
4. Adolescents should know their rights and responsibilities as workers and should seek training and information about safe work practices.

References

1. NIOSH. Request for assistance in preventing deaths and injuries of adolescent workers. Cincinnati: US Department of Health and Human Services, Public Health Service, CDC, 1995; DHHS publication no. (NIOSH)95-125.
2. Toscano G, Windau J. The changing character of fatal work injuries. Monthly Labor Review 1994;118:17–28.
3. Layne LA, Castillo DN, Stout N, Cutlip P. Adolescent occupational injuries requiring hospital emergency department treatment: a nationally representative sample. Am J Public Health 1994;84:657–60.
4. CDC. Surveillance of occupational injuries treated in hospital emergency departments. MMWR 1983;32 (no. 2SS):31SS–37SS.
5. Castillo DN, Landen DD, Layne LA. Occupational injury deaths of 16- and 17-year-olds in the United States. Am J Public Health 1994;84:646–9.

Errata: Vol. 44, No. 32

In the article, "Human Granulocytic Ehrlichiosis—New York, 1995," references *4,5,* and *3* at the end of the second and third sentences of the Editorial Note on page 594 should be renumbered (***3,4***) and (***5***), respectively; however, the numbers were attributed to the correct references in the list on the following page.

The fourth and new fifth sentences of the first paragraph of the Editorial Note should read: "*E. chaffeensis* has most commonly been identified in the Lone Star tick (*Amblyomma americanum*) (***6***)." **HGE patients reported having been bitten by "deer ticks" and "wood ticks" (possibly *I. scapularis* and *Dermacentor variabilis*, respectively) (*2*).**" The new reference *6* is: **Anderson BE, Sims KG, Olson JG, et al. *Amblyomma americanum*: a potential vector of human ehrlichiosis. Am J Trop Med Hyg 1993;49:239–44.**

Erratum: Vol. 44, No. 34

In the article "Hypertension Among Mexican Americans—United States, 1982–1984 and 1988–1991," the last sentence on page 635 should read: "Analysis of characteristics of persons with hypertension included awareness (being told by a health professional of having hypertension), treatment (taking antihypertension medication),and control (taking antihypertension medication **and** having blood pressure <140/90 mm/Hg)."

Erratum: Vol. 43, No. 38

On page 702 of the article "Health Status of Displaced Persons Following Civil War—Burundi, December 1993–January 1994," in the "Reported by:" section, S Nkurikiye should be listed first, and the affiliation of JS Kidasi should be U.S. Agency for International Development.

Monthly Immunization Table

To track progress toward achieving the goals of the Childhood Immunization Initiative (CII), CDC publishes monthly a tabular summary of the number of cases of all diseases preventable by routine childhood vaccination reported during the previous month and year-to-date (provisional data). In addition, the table compares provisional data with final data for the previous year and highlights the number of reported cases among children aged <5 years, who are the primary focus of CII. Data in the table are reported through the National Electronic Telecommunications System for Surveillance.

Number of reported cases of diseases preventable by routine childhood vaccination — United States, July 1995 and 1994–1995*

Disease	No. cases, July 1995	Total cases January–July		No. cases among children aged <5 years† January–July	
		1994	1995	1994	1995
Congenital rubella syndrome (CRS)	0	2	4	2	4
Diphtheria	0	2	0	1	0
Haemophilus influenzae§	102	708	728	200	177
Hepatitis B¶	949	6,595	5,703	69	50
Measles	16	818	220	192	79
Mumps	52	829	519	136	103
Pertussis	477	2,052	1,679	1,173	996
Poliomyelitis, paralytic**	0	1	0	0	0
Rubella	30	198	97	21	15
Tetanus	2	21	13	0	1

*Data for 1994 and 1995 are provisional.

†For 1994 and 1995, age data were available for ≥93% of cases.

§Invasive disease; *H. influenzae* serotype is not routinely reported through the National Electronic Telecommunications System for Surveillance. Of 177 cases among children aged <5 years, serotype was reported for 47 cases, and of those, 27 were type b, the only serotype of *H. influenzae* preventable by vaccination.

¶Because most hepatitis B virus infections among infants and children aged <5 years are asymptomatic (although likely to become chronic), acute disease surveillance does not reflect the incidence of this problem in this age group or the effectiveness of hepatitis B vaccination in infants.

**One case with onset in July 1994 has been confirmed; this case was vaccine-associated. An additional six suspected cases are under investigation. In 1993, three of 10 suspected cases were confirmed; two of the confirmed cases were vaccine-associated, and one was imported. The imported case occurred in a 2-year-old Nigerian child brought to the United States for care of his paralytic illness; no poliovirus was isolated from the child.

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